

Abstract of the Disclosure

The preferred embodiments described herein provide a Packet Matching System and Method. A Matching Rules Database is quickly searched for a Best Matching Rule for a packet header. Power is conserved in the system by searching only a small subset of rules of the rules database. An All Matching Rules Engine comprising a plurality of Necessary Path Condition Rules is searched to determine which subset of matching rules, or sub-databases, to search for a best matching rule. The sub-databases are then searched by Best Matching Rules sub-Engines and a best matching rule is selected from the results of the sub-database searches by a Collate Engine. The Rules Database is organized according to a Hierarchical Subdivision Tree. Necessary Path Condition Rules and sub-databases are extracted from the Hierarchical Subdivision Tree.

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